UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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ART UNIT	PAPER NUMBER
3623	

DATE MAILED: 11/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/919,302	SARLAY ET AL.
	Examiner	Art Unit
	Johnna R Stimpak	3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _26 August 2004_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _37-51_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _37-51_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   The following is a non-final office action upon examination of application number

09/919,302. Claims 37-51 are pending and have been examined on the merits discussed below.

Response to Arguments

2.   Applicant's arguments filed August 26, 2004 have been fully considered but they are not

persuasive. Applicant first argues that the Pipkins product does not have the specific

functionality required by the pending claims – clauses (b)-(c) in claim 37. Examiner notes that

clauses (b) and (c) in claim 37 teach forecasting a number of contacts over a time period

associated with a service level goal. Firstly the forecast of contacts to handle, is broad, and is

interpreted as determining a number of incoming email or calls (contacts). Inherent to the

Pipkins system is determining a number of incoming emails or calls in order to schedule staff to

meet service level goals by balancing the work to be completed with the resources available in

order to avoid overstaffing or understaffing. The Pipkins reference teaches forecasting email

management (the number of incoming emails) and customer service representative staffing

requirements to meet a given service level according to work volume benchmarks or targets.

Also in arguing that the reference does not teach a forecast of contacts to handle, Applicant states

that the prior art approach (including that implemented by Pipkins) teaches the well-known

process of forecasting calls received to determine staffing schedules. It is not clear where the

difference is. Forecasting the calls received would inherently include forecasting the contacts to

handle.

3.   Applicant also reiterates that the claimed invention distributes the contact load over a
time period to determine how much staff is needed at different times of the day and week.
Pipkin's teaches using the historical reporting for staffing. The system balances the burden of
work to be completed with the resources available to complete the work without overstaffing or
understaffing occurring. Here the work to be completed is the incoming emails which are
scheduled (or distributed) to the staff in a way that avoids overstaffing or understaffing. Here, it
is inherent that if it is determined that a large volume of emails come in at a certain time of day
or week, more people will be staffed to handle the volume.

4.   As to the Applicant's argument that the January 2000 reference is silent as to any
"forecasting" functions, Examiner notes the reference was solely used to show the Pipkins
product did exist and was for sale prior to the filing date of this application.

5.   In response to applicant's argument that the references fail to show certain features of
applicant's invention, it is noted that the features upon which applicant relies (i.e., Applicant's
reference to paragraph 29 of the description and to table 1) are not recited in the rejected
claim(s). Although the claims are interpreted in light of the specification, limitations from the
specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26
USPQ2d 1057 (Fed. Cir. 1993).

6.   In light of the above response, prior rejections to the claims are upheld and are
reproduced with slight modifications below.

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

8.   **Claims 37-51** are rejected under 35 U.S.C. 103(a) as being unpatentable by Pipkins'

Maxima Advantage incorporating Mustang Reports ™, hereinafter referred to as Pipkins.

Applicant is reminded that the following rejection is based on the product of Pipkins. The

following references discuss the following aspects of the Pipkins email management system:

"Mustang.com and Pipkins Join Forces In eService Workforce Management" –

December 23, 1999 from Proquest. Reference paragraphs 1-10.

"Pipkins Teams with Mustang.com to Enable Call Center Agents to Integrate Phone Call

and Email Functions" – March 16, 2000 from Proquest. Reference paragraphs 11-19.

As per **claim 37**, Pipkins teaches (a) identifying a given service level goal for a given

future time period within the given future time range of the forecast, the service level goal

describing a maximum amount of time that may occur between receipt of a given contact and

handling of the given contact, wherein the given contact comprises a part of the contact load

expected to occur during the given future time period (paragraph 1 – service level goals are set

and the email customer service workforce is scheduled to meet the goals so that incoming emails

are handled by the staff during their shifts); (b) for the given future time period of the forecast,

using the given service level goal identified for that given future time period to identify a number

of time periods over which the contact load in that given future time period may be distributed

(paragraph 2 – forecasting is used to predict e-mail management and customer representative

staffing requirements) and Pipkins also inherently teaches the steps being performed on an

electronic processor since the Pipkins and Mustang systems are computer based. Pipkins teaches

scheduling the workforce based on forecasts of email, but does not explicitly teach (c) for the

given future time of the forecast, applying a given function to the contact load to distribute the

contact load for the given future time period over a given set of the identified number of time

periods. Since Pipkins teaches forecasting email over time and scheduling workforce shifts to

meet the email demands it would have been obvious to use a function to distribute the email over

a time span so the workforce could meet the service goals. This would make for a quicker email

response system wherein service goals could be met efficiently.

As per **claim 38**, Pipkins teaches the contacts that are not required to be serviced by

contact center agents in real-time include at least one electronic communication (paragraph 1

teaches contacts to be serviced include electronic mail – which inherently, unlike telephone calls,

do not have to be responded to in real-time).

As per **claim 39**, Pipkins teaches the contacts that are not required to be serviced by

contact center agents in real-time include at least one written communication (paragraph 1

teaches contacts to be serviced include electronic mail – which inherently include a written

communication and, unlike telephone calls, do not have to be responded to in real-time).

As per **claim 40**, Pipkins teaches the given function is based on one or more factors

selected from a set of factors including: a number of contact center agents expected to be

available to service the contacts during the given set of identified number of time periods, an

amount of time that a contact center agent may allocate to service contacts, an amount of excess

capacity that a contact center agent has available, a backlog goal, an agent average handling

time, and agent schedule adherence (paragraph 7 – balancing the burden of work to be completed

with the resources available to complete that work, paragraph 15 – average handling time is used

to staff the email reponses).

As per **claim 41**, Pipkins teaches generating a staffing requirement for the given future

time period (paragraph 2 – forecasting is used to predict e-mail customer representative staffing

requirements).

As per **claim 42**, Pipkins does not explicitly teach including the step of repeating steps (a)

– (c) on an iterative basis for additional given future time periods within the given future time

range to distribute the contact load for each additional given future time period. However,

Pipkins teaches an optimization algorithm to forecast and schedule the workforce agents and it is

well known to one of ordinary skill in the art that an scheduling optimization algorithm includes

many iterations to come up with the optimal solution. The iterations would make the scheduling

process be most efficient.

As per **claim 43**, Pipkins teaches aggregating, with respect to a given future time period,

the contact load that has been distributed into that given future time period as a result of

applying, on an iterative basis, the given function in steps (a) – (c) (paragraph 15 – the system

allows for staffing email response handling more efficiently by knowing the number of emails

coming in and the average handling time so that the staffing can be optimized to meet service

levels).

As per **claim 44**, Pipkins teaches generating a staffing requirement for the given future time period as a function of the aggregate contact load that has been distributed into that given future time period (paragraph 15 – the system allows for staffing email response handling more efficiently by knowing the number of emails coming in and the average handling time so that the staffing can be optimized to meet service levels).

As per **claim 45**, Pipkins teaches generating a staffing requirement for the given future time period as a function of the aggregate contact load that has been distributed into that given future time period and an agent average handling time that has been forecast for that given future time period (paragraph 15 – the system allows for staffing email response handling more efficiently by knowing the number of emails coming in and the average handling time so that the staffing can be optimized to meet service levels).

As per **claim 46**, Pipkins teaches (a) identifying a given service level goal for a given future time period within the given future time range of the forecast, the service level goal describing a maximum amount of time that may occur between receipt of a given contact and handling of the given contact, wherein the given contact comprises a part of the contact load expected to occur during the given future time period (paragraph 1 – service level goals are set and the email customer service workforce is scheduled to meet the goals so that incoming emails are handled by the staff during their shifts); (b) for the given future time period of the forecast, using the given service level goal identified for that given future time period to identify a number of time periods over which the contact load in that given future time period may be distributed (paragraph 2 – forecasting is used to predict e-mail customer representative staffing requirements); and (e) Pipkins also inherently teaches the steps being performed on an electronic

processor since the Pipkins and Mustang systems are computer based. Pipkins teaches

scheduling the workforce based on forecasts of email, but does not explicitly teach (c) for the

given future time of the forecast, applying a given function to the contact load to distribute the

contact load for the given future time period over a given set of the identified number of time

periods. Since Pipkins teaches forecasting email over time and scheduling workforce to meet the

email demands it would have been obvious to use a function to distribute the email over a time

span so the workforce could meet the service goals. This would make for a quicker email

response system wherein service goals could be met efficiently. Pipkins also does not explicitly

teach (d) including the step of repeating steps (a) – (c) on an iterative basis for additional given

future time periods within the given future time range to distribute the contact load for each

additional given future time period. However, Pipkins teaches an optimization algorithm to

forecast and schedule the workforce agents and it is well known to one of ordinary skill in the art

that an scheduling optimization algorithm includes many iterations to come up with the optimal

solution. The iterations would make the scheduling process be most efficient.

As per **claim 47**, Pipkins teaches (f) generating a staffing requirement for the given future

time period as a function of the aggregate contact load that has been distributed into that given

future time period and an agent average handling time that has been forecast for that given future

time period (paragraph 15 – the system allows for staffing email response handling more

efficiently by knowing the number of emails coming in and the average handling time so that the

staffing can be optimized to meet service levels).

As per **claim 48**, Pipkins teaches the contacts that are not required to be serviced by

contact center agents in real-time include contacts selected from a set of contacts that include:

electronic communications and written communications (paragraph 1 teaches contacts to be

serviced include electronic mail – which inherently include a written communication and, unlike

telephone calls, do not have to be responded to in real-time).

As per **claim 49**, Pipkins teaches wherein the electronic communications include at least

one e-mail (paragraph 1 teaches contacts to be serviced include electronic mail – which

inherently include a written communication and, unlike telephone calls, do not have to be

responded to in real-time).

As per **claim 50**, Pipkins does not explicitly teach the electronic communications include

at least one fax. Pipkins does teach scheduling workforce to handle electronic mail responses. It

is old and well known to one of ordinary skill in the art that many email systems have faxing

capabilities, therefore it would have been obvious to include faxes in the electronic

communications to be distributed among the workforce to be sure each gets responded to in the

most efficient manner.

As per **claim 51**, Pipkins teaches the apparatus with code executable on a processor to

perform the method of claim 46, therefore the since the references applied to claim 46 teaches a

computerized system to perform the method, the same rejection as applied to claim 46 is also

applied to claim 51.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Johnna R Stimpak whose telephone number is 703-305-4566.

The examiner can normally be reached on M-F 8am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tariq Hafiz can be reached on 703-305-9643. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JS
11/22/2004

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